

Listing of the Claims:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method to provide information to multiple data storage devices, comprising the steps of:

providing a computer comprising memory;

providing a first data-storage-device ~~data storage and retrieval system~~ and a second data storage-device ~~data storage and retrieval system~~, wherein said first data-storage-device ~~data storage and retrieval system~~ is capable of communicating with said second data-storage-device ~~data storage and retrieval system~~;

generating said first information by said computer

saving said first information in said memory;

providing a least recently used protocol;

determining using said least recently used protocol if said first information should be written to one or more information storage media;

operative if said first information should be written to one or more information storage media, providing first information to said first-data-storage-device ~~data storage and retrieval system~~ at a first time;

determining if said first information must be synchronously provided to said second data storage and retrieval system;

operative if said first information must be synchronously provided to said second data storage and retrieval system, generating a write eommand comprising a synchronous copy attribute;

operative if said first information need not be synchronously provided to said second data storage and retrieval system, generating a write command comprising an asynchronous copy attribute.

~~providing seecnd information to said first data storage device;~~

~~determining if said seecnd information comprises a synchronous copy attribute;~~

~~operative if said seecnd information comprises a synchronous copy attribute;
synchronously providing said first information to said seecnd data storage device;~~

~~operative if said seecnd information does not comprise a synchronous copy attribute;
providing said first information to said seecnd data storage device at a seecnd time, wherein
said seecnd time is later than said first time.~~

2. (currently amended) The method of claim 1, wherein said seecnd information write command comprises a synchronous copy attribute, and wherein said first data storage device comprises a first information storage medium, and wherein said seecnd data storage device comprises a seecnd information storage medium, further comprising the following steps:

writing said first information to said first information storage medium data storage and retrieval system;

writing said first information to said seecnd information storage medium data storage and retrieval system;

determining if said first information has been written to both said first information

~~storage medium and to said second information storage medium;~~

~~operative if said first information has been written to both said first information storage medium and to said second information storage medium, generating third information a write complete signal.~~

3. (currently amended) The method of claim 2, wherein said first information is provided to said first data ~~storage device~~ data storage and retrieval system by a host computer, and wherein said ~~third information comprises a write complete signal~~, further comprising the step of providing said write complete signal to said host computer.

4. (currently amended) The method of claim 1, wherein said ~~second information write command~~ write command does not comprise a synchronous copy attribute, and wherein said first data storage device comprises a first information storage medium, further comprising the following steps:

writing said first information to said first information storage medium;

determining if said first information has been written to said first information storage medium;

operative if said first information has been written to said first information storage medium, generating ~~third information~~ a write complete signal.

5. Canceled.

6. (currently amended) The method of claim 5 ~~4~~, wherein said ~~second data storage device comprises a second information storage medium~~, further comprising the steps of:

scheduling the transmission of said first information to said second ~~data storage device~~ data storage and retrieval system;

providing said first information to said second ~~data storage device~~ data storage and

retrieval system;

writing said first information to said second ~~data storage device~~ data storage and retrieval system.

7. Canceled.

8. Canceled.

9. Canceled.

10. Canceled.

11. (currently amended) An article of manufacture comprising a processor, a memory, a least recently used protocol, and computer useable readable medium having computer readable program code disposed therein to provide information from a first ~~data storage device~~ data storage and retrieval system to a second ~~data storage device~~ data storage and retrieval system, the computer readable program code comprising a series of computer readable program instructions which cause said processor to carry out a process comprising the steps of steps to effect:

generating said first information

saving said first information in said memory;

determining using said least recently used protocol if said first information should be written to one or more information storage media;

operative if said first information should be written to one or more information storage media, providing first information to said first ~~data storage device~~ data storage and retrieval system at a first time;

determining if said first information must be synchronously provided to said second

data storage and retrieval system;

operative if said first information must be synchronously provided to said second data storage and retrieval system, generating a write command comprising a synchronous copy attribute;

operative if said first information need not be synchrously provided to said second data storage and retrieval system, generating a write command comprising an asynchronous copy attribute.

~~receiving second information;~~

~~determining if said second information comprises a synchronous copy attribute;~~

~~operative if said second information comprises a synchronous copy attribute;~~

~~synchronously providing said first information to said second data storage device;~~

~~operative if said second information does not comprise a synchronous copy attribute, providing said first information to said second data storage device at a second time, wherein said second time is later than said first time.~~

12. (currently amended) The article of manufacture of claim 11, wherein said second information write command comprises a synchronous copy attribute, and wherein said first data storage device comprises a first information storage medium, and wherein said second data storage device comprises a second information storage medium, said computer readable program code further comprising a series of computer readable program steps to effect instructions which cause said processor to carry out a process comprising the steps of:

writing said first information to said first information storage medium data storage and retrieval system;

writing said first information to said ~~second information storage medium~~ data storage and retrieval system;

~~determining if said first information has been written to both said first information storage medium and to said second information storage medium;~~

~~operative if said first information has been written to both said first information storage medium and to said second information storage medium, generating third information a write complete signal.~~

13. Canceled.

14. (currently amended) The article of manufacture of claim 11, wherein said ~~second information write command~~ does not comprise a synchronous copy attribute, ~~and wherein said first data storage device comprises a first information storage medium~~, said computer readable program code further comprising a series of computer readable program steps to effect instructions which cause said processor to carry out a process comprising the steps of:

writing said first information to said ~~first information storage medium~~ data storage and retrieval system;

~~determining if said first information has been written to said first information storage medium;~~

~~operative if said first information has been written to said first information storage medium, generating third information~~ a write complete signal.

15. Canceled.

16. (currently amended) The article of manufacture of claim ~~15~~ 14, wherein said ~~second data storage device comprises a second information storage medium~~, said computer

readable program code further comprising a series of computer readable program ~~steps to effect~~
instructions which cause said processor to carry out a process comprising the steps of:

scheduling the transmission of said first information to said second ~~data storage device~~
data storage and retrieval system;

providing said first information to said second ~~data storage device~~ data storage and
retrieval system;

writing said first information to said second ~~data storage device~~ data storage and
retrieval system.

17. Canceled.

18. Canceled.

19. Canceled.

20. (currently amended) A computer program product usable with a usable with a
programmable computer processor, said product comprising a computer readable medium
having computer readable program code embodied therein to provide information from a first
data storage device to a second data storage device, said computer readable code comprising:
computer readable program code which causes said programmable computer processor
to save said first information in a memory;

computer readable program code which causes said programmable computer processor
to determine using a least recently used protocol if said first information should be written to
one or more information storage media;

computer readable program code which, if said first information should be written to
one or more information storage media, causes said programmable computer processor to

provide said first information to said data storage and retrieval system;

computer readable program code which causes said programmable computer processor to determining if said first information must be synchronously provided to said second data storage and retrieval system;

computer readable program code which, if said first information must be synchronously provided to said second data storage and retrieval system, causes said programmable computer processor to generate a write command comprising a synchronous copy attribute;

computer readable program code which, if said first information need not be synchronously provided to said second data storage and retrieval system, causes said programmable computer processor to generate a write command comprising an asynchronous copy attribute.

~~computer readable program code which causes said programmable computer processor to receive first information at a first time;~~

~~computer readable program code which causes said programmable computer processor to receive second information at said first time;~~

~~computer readable program code which causes said programmable computer processor to determine if said second information comprises a synchronous copy attribute;~~

~~computer readable program code which, if said second information comprises a synchronous copy attribute, causes said programmable computer processor to synchronously provide said first information to a second data storage device;~~

~~computer readable program code which, if said second information does not comprise a synchronous copy attribute, causes said programmable computer processor to provide said first~~

information to a second data storage device at a second time, wherein said second time is later than said first time.

21. (currently amended) The computer program product of claim 20, wherein said second information comprises a synchronous copy attribute, and wherein said first data storage device comprises a first information storage medium, and wherein said second data storage device comprises a second information storage medium, further comprising:

~~computer-readable program code which causes said programmable computer processor to write said first information to said first information storage medium;~~

~~computer-readable program code which causes said programmable computer processor to write said first information to said second information storage medium;~~

computer readable program code which causes said programmable computer processor to determine if said first information has been written to both said first information storage medium data storage and retrieval system and to said second information storage medium data storage and retrieval system;

computer readable program code which, if said first information has been written to both said first information storage medium data storage and retrieval system and to said second information storage medium data storage and retrieval system, causes said programmable computer processor to generate ~~third information~~ a write complete signal.

22. Canceled.

23. (currently amended) The computer program product of claim 20, wherein said ~~second information~~ write command does not comprise a synchronous copy attribute, and wherein said first data storage device comprises a first information storage medium, further

comprising:

computer readable program code which causes said programmable computer processor to write said first information to said first information storage medium data storage and retrieval system;

~~computer readable program code which causes said programmable computer processor to determine if said first information has been written to said first information storage medium;~~

computer readable program code which, if said first information has been written to said first information storage medium, causes said programmable computer processor to generate third information a write complete signal.

24. Canceled.

25. (currently amended) The computer program product of claim 24, wherein said ~~second data storage device comprises a second information storage medium~~, further comprising:

computer readable program code which causes said programmable computer processor to schedule the transmission of said first information to said second data storage device data storage and retrieval system;

~~computer readable program code which causes said programmable computer processor to provide said first information to said second data storage device;~~

~~computer readable program code which causes said programmable computer processor to write said first information to said second information storage medium.~~

26. Canceled.

27. Canceled.

28. Canceled.

LAW OFFICE OF
DALE F. REGELMAN, P.C.
4231 S. Fremont Street
Tucson, Arizona 85714

TEL 520-741-7896
FAX 520-746-9114